

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-46 (Canceled).

Claim 47 (Previously Presented): An article of clothing comprising:
 a woven substrate having an abrasion resistance; and
 a plurality of non-overlapping guard plates separated by gaps on a surface of the substrate and comprising cured polymeric resin,
 wherein the guard plates partially penetrates into the woven substrate to provide a mechanical bond between the guard plates and the substrate to prevent detaching of the guard plates from the substrate when the composite fabric is conformed to a curved state from a planar state,
 wherein a thickness of the guard plates is between 5 and 40 mils, and
 wherein the array of plates guard plates are provided such that the abrasion resistance of the composite fabric is at least 5 times greater than the abrasion resistance of the substrate.

Claims 48 - 55 (Canceled).

Claim 56 (Previously Presented): The article of clothing of claim 47, wherein the guard plates comprise heat resistant material.

Claim 57 (Previously Presented): The article of clothing of claim 47, wherein the guard plates comprise abrasion resistant additive material.

Claims 58-65 (Canceled).

Claim 66 (Previously Presented): The article of clothing of claim 47, wherein the width of the gaps is between 5 and 40 mils.

Claim 67 (Canceled).

Claim 68 (Previously Presented): The article of clothing of claim 47, wherein the width of the gaps is between 5 and 20 mils.

Claim 69 (Canceled).

Claim 70 (Previously Presented): The article of clothing of claim 47, wherein the guard plates have a hardness of approximately 80 Shore D.

Claim 71 (Previously Presented): The article of clothing of claim 47, wherein the article comprises one of pant, jacket, wet suit, knee pad, glove or apron.

Claim 72 (Currently Amended): The article of clothing of claim 47, wherein the ~~thermoset~~ cured polymeric resin comprises a thermoset epoxy resin.

Claim 73 (Previously Presented): The article of clothing of claim 47, wherein the guard plates have a tensile strength greater than 100 kgf/cm².

Claim 74 (Previously Presented): The article of clothing of claim 57, wherein the additive material comprises one or more of alumina particles, titanium particles, or ceramic beads.

Claim 75 (Previously Presented): The article of clothing of claim 47, wherein the woven substrate has a thickness between 0.5 and 2 millimeters.

Claim 76 (Previously Presented): The article of clothing of claim 47, wherein the thickness of the guard plates is between 5 and 20 mils.

Claim 77 (Previously Presented): The article of clothing of claim 47, wherein the guard plates have a maximum dimension between 20 and 200 mils.

Claim 78 (Previously Presented): The article of clothing of claim 47, wherein the overall abrasion resistance of the composite fabric is between 10 and 200 times greater than the abrasion resistance of the substrate.

Claim 79 (Previously Presented): An article of clothing to be worn over a curved body portion, the article including a curved exterior portion formed from flexible and abrasion resistant composite fabric, the composite fabric comprising:

- a woven substrate having an abrasion resistance and sufficient flexibility to be conformable to the curved exterior portion of the article from a planar configuration; and
- an array of non-overlapping guard plates arranged in a pattern, the guard plates being separated by gaps and comprising cured epoxy resin,

- wherein the resin material of the guard plates partially penetrates into the woven substrate to provide a mechanical bond between the guard plates and the substrate to prevent detaching of the guard plates from the substrate when the composite fabric is conformed to the curved state and flexed,

- wherein a width of the gaps is between 5 and 40 mils, a thickness of the guard plates is between 5 and 40 mils,

- wherein the guard plates have a maximum dimension between 20 and 200 mils,

- wherein the array of plates guard plates are provided such that the overall abrasion resistance of the composite fabric is at least 10 times greater than the abrasion resistance of the substrate, and

- wherein the article comprises one of pant, jacket, wet suit, knee pad, glove or apron.

Claim 80 (Previously Presented): The article of clothing of claim 79, wherein the guard plates have a hardness of approximately 80 Shore D.

Claim 81 (Previously Presented): The article of clothing of claim 79, wherein the substrate has a thickness between 0.5 to 2 millimeters.

Claim 82 (Previously Presented): An article comprising:

a woven fabric substrate including a top surface and having an abrasion resistance; and
a plurality of non-overlapping guard plates comprising a cured polymer resin on the top surface of the fabric substrate, wherein the plurality of guard plates are separated by gaps on the top surface of the woven fabric substrate and partially penetrate into the top surface of the woven fabric substrate to provide a mechanical bond between the woven fabric substrate and the plurality of guard plates, wherein the plurality of plates guard plates are provided such that the abrasion resistance of the article is at least 5 times greater than the abrasion resistance of the substrate.

Claim 83 (Previously Presented): The article of claim 82, wherein the guard plates have a thickness between 5 and 40 mils.

Claim 84 (Previously Presented): The article of claim 82, wherein the guard plates comprise one or more of alumina particles, titanium particles, or ceramic beads.